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ABSTRACT

The affective relationship between six male and one female preschool-aged autistic children and their parents was studied by employing a method enabling systematic analysis of parent/child interaction. Children ranged in age from 3 years, 7 months to 6 years, 4 months. Through use of the Bank Interaction Coding System (BICS), behaviorial sequences of affective expression between autistic children and their parents were identified and described. The nature and quality of each person's responses were considered within the context of the other individual's actions. Additionally, periods of nonrelatedness were examined, and antecedent and consequent parental affective behaviors were described. Sequences of affective patterns in mother/child and father/child dyads, as well as task differences, were compared and contrasted. Severity of children's symptomology ranged from essentially no communication and minimal relatedness to moderate use of language and some relatedness. Results suggested that (1) autistic children do display and maintain affective interaction with parents, and (2) episodes of nonrelatedness are of relatively short duration and do not predominate in interaction with either mother or father. It was concluded that findings demonstrated the potential value of the BICS.(RH)

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ASSESSMENT OF AFFECTIVE INTERACTION BETWEEN AUTISTIC CHILDREN AND THEIR PARENTS

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Early infantile autism is a severe psychotic disorder of childhood which was first distinguished and labeled by Kanner in 1943. The primary features of this syndrome as described by Kanner, and essentially consistent with the current DSM-III (1980) diagnostic criteria are extreme aloofness, avoidance of human contact, inability to relate to people or form affectionate relationships, severe speech disturbance or mutism, an insistence on the preservation of sameness, and a fascination with material objects in preference to human contact. By definition, the age of onset of early infantile autism (EIA) is prior to 30 months of age.

In attempting to gain a better understanding of early infantile autism, it seems most fruitful to return to Kanner's (1943) initial description of autism as a "disturbance in affective contact". Kanner referred to the child's extreme autistic aloneness as the most distinct characteristic of the syndrome, and without its presence, the diagnosis of autism cannot be made. From the beginning of life, the child seems unable to relate to humans and situations in the usual and expected way. This autistic aloneness is described as an aloofness, an inability to develop an emotional contact or relationship with people, even including the child's own parents who may be treated with complete indifference. The autistic child appears to be unoriented to, disinterested in, and detached from the events occurring in his environment. It may be this

isolation and aloneness inherent in autism which prevents the autistic child from developing both emotionally and cognitively.

Researchers and clinicians alike recognize the importance of early childhood experiences for the development of the child. DesLauriers and Carlson (1969) strongly profess that emotional and affective factors play a central role in the organization and integration of sensory experiences which allow for the personal growth of the child. Without an adequate affective relationship with the external environment, the child may remain fixated at an autistic stage of development. The focus of attention regarding autism then must be on the child's affective relationship with his environment and ways to enhance this relationship. As DesLauriers and Carlson succinctly state, "... a child does not grow in isolation but only through interaction with the parental environment." The major social relationship during the early years of any child's life is with his/her parents. Through the relationship which develops between the child and his/her mother and father, the child's personality is built. Thus, for any child, autistic or not, his/her interaction with mother and father is an essential component for personality growth and development.

Although the importance of the parent-child relationship is commonly recognized by researchers and clinicians, there are few studies which have systematically investigated the quality of the relationship between

autistic children and their parents. In general, prior research has utilized a unidirectional, causation model which merely focuses on traits or characteristics of the parents or possibly the child, but fails to view the two in interaction and the reciprocal influences one may have on the other. More recently, however, there has been a growing body of research of normal parent-child interaction which emphasizes the idea of bidirectionality of influence of interaction. These researchers view interaction as a two-way process in which the mutual influence of parent and child on one another in the flow of interaction is emphasized (Lewis & Lee-Painter, 1974). Measures of interaction include microanalytic scores in which the moment-to-moment transitions in states of parent and child are systematically recorded. These microanalytic studies of normal parent-child interaction have demonstrated that specific interactive behaviors such as vocalizing, gazing, and smiling tend to be synchronized and that the affective states of the participants tend to be reciprocal in nature (Lewis, 1972; Maccoby & Martin, in press; Martin et al., 1981; Stern, 1974; Stern et al., 1975; Stern et al., 1977; Tronick et al., 1980).

The present study introduces to the literature an interactional method which allows for a systematic analysis of the affective relationship between preschool age, autistic children and their parents. Using the Bank Interaction Coding System (BICS), behavioral sequences of

affective expression between autistic children and their parents were identified and described. The nature and quality of each person's responses was considered within the context of the nature of the other individual's actions. A further aim was to examine periods of non-relatedness by the child and describe the antecedent and consequent parental affective behaviors. In addition, the sequences of affective patterns of the mother-child and father-child dyads as well as task differences were compared and contrasted.

Based on a review of the autism and parent-child interaction literature and the assumption of autistic children as unable to relate to others, the following research questions regarding the patterns of affective interaction between autistic children and their parents were raised for the present study:

I. Is there evidence of reciprocity of affective behavior between parent and autistic child?

A. Do autistic children tend to respond positively to their parents' positive behaviors? Or do they tend to be negativistic and/or seek isolation? Are negative behaviors followed by negative? Do parents respond positively to their children's positive behaviors?

II. Is it parent or child who initiates and terminates the interactions?

A. Is it the parent who has to do most of the initiating of interaction with the autistic child or does the child also attempt to engage the parent in interaction?

B. Is it the autistic child who tends to terminate an interaction or is it just as likely for the parent to be the one to disrupt their interaction?

III. Is there any evidence of "autistic aloneness" or avoidance during interaction with the parent?

A. Does the autistic child display periods of non-relatedness?

B. Do extended periods of non-relatedness exist, and if so, to what extent?

C. What are the possible precipitants of the child's non-related state on the part of the parent and child?

D. How are periods of non-relatedness disrupted? Does the parent disrupt these periods of non-relatedness by attempting to engage the child in interaction? And how does the child behave immediately following the termination of these sustained periods of non-relatedness?

E. When are these periods of avoidance or lack of relatedness more likely to occur? Are periods of non-relatedness more likely to occur during the inhibition task when the child is required to interact directly with the parent? And are these periods of non-relatedness more frequent with mother than with father?

The subjects selected for the present investigation were seven autistic children and their mothers and fathers. The sample was drawn from families participating in the UCLA Family Interaction Project whose children 1) met the criteria for early infantile autism; 2) were between 3 and

6 years of age; and 3) were living with both biological parents. All child diagnoses were made by a group of psychiatrists at the UCLA Neuropsychiatric Institute's Clinical Research Center using the American Psychiatric Association's DSM-III criteria for infantile autism.

The present sample was composed of six families with a male autistic child and one family with a female autistic child. At the time of observation, the children ranged in age from 3 years, 7 months to 6 years, 4 months, with a mean age of 4 years, 10 months. Intelligence testing based on the Merrill-Palmer Scales revealed an IQ range of 50 - 110, with a mean IQ of 75. The severity of symptomology of the autistic children ranged from essentially no communicative speech and minimal relatedness to moderate use of language and some relatedness.

The interactions of mother-child and father-child dyads were observed and videotaped during play in a UCLA clinical interviewing room equipped with a one-way mirror. The 9 X 12 foot, carpeted clinic room contained a table and two chairs and a variety of age-appropriate toys for the child.

Mother-child and father-child dyads were videotaped for 10 - 15 minutes each. Each 10 - 15 minute session included two semi-structured tasks which were designed to reflect different degrees of social demand. The first task, which lasted between 5 and 10 minutes, was a free play task in which the parent was instructed to freely play with his/her child as he/she would at home. The second 5-minute period consisted of an inhibition/interaction task in which the

parent was instructed to encourage the child's involvement in one-to-one interaction without the use of objects or toys, which remained in the room.

A review of the family interaction and autism literature revealed the need for a systematic coding method to assess the reciprocal influences that the child and parent exert on each other during interaction. The Bank Interaction Coding System developed for the purposes of the present study was designed to focus on the affect-related nonverbal and paraverbal behaviors which occur between parent and autistic child in interaction. The method was based on a bi-directional model in which both members of the observed dyad are the focus of assessment. The emphasis is on the encoding of sequential events -- both antecedent and consequent behaviors emitted by both parent and child. Both the affective quality (positive, negative, or neutral) and the content (physical, visual, facial expression, paraverbal, or proximity seeking/avoiding) are recorded. Behavior codes are recorded on a continuous basis thereby providing a sequential account of the affective interaction between parent and child.

All of the videotapes were coded by two independent, trained coders. Satisfactory levels of both intercoder and intracoder reliability were demonstrated, therefore the Bank Interaction Coding System utilized for purposes of this study appears to be a reliable instrument for the assessment of parent-child interaction.

None of the behavior codes taken alone was of sufficient frequency for sequential analysis. Therefore, it was necessary to combine behaviors into more inclusive categories. Conceptually derived behavior clusters were created representing the quality of the affective interaction. Eight groups of interactive behavior were generated: child positive, child negative, child neutral, child no interaction, mother/father positive, mother/father negative, mother/father neutral, and mother/father no interaction. These data, in their reduced form, were used for all subsequent analyses.

All of the sequential interaction data were pooled across dyads and analyzed using conditional probability analyses following Martin, et al. (1981). Conditional probability methods attempt to identify the temporal relationship of one partner's behavior with that of the other, and either participant may be the focus of the analysis. "The researcher calculates the probability of the occurrence of a selected behavior by one person (the actor) given the prior occurrence of a selected behavior by the other person (the partner). This conditional probability is compared with the actor's baseline for the behavior, that is, the probability that the action would occur whether or not the partner's behavior had occurred" (Martin, et al., 1981, p. 146). A comparison is made between the conditional probability and the unconditional or baseline probability to demonstrate the magnitude of the effect that the partner's behavior had on the actor's behavior. For example, the

following statement may result: the probability that the child will display a POSITIVE behavior in the interval following the mother's having displayed a POSITIVE behavior is greater than the baseline probability that the child would exhibit such a behavior independent of the mother's prior behavior. (A detailed description of the conditional probability analyses and the complete results of the study are included in Bank, 1983.)

The value of the Bank Interaction Coding System (BICS) is best demonstrated by its ability to describe and summarize the affective interaction patterns of both a group of autistic children and their parents and individual families. The group results of the present investigation indicated the presence of reciprocity of affective behavior between autistic preschoolers and their parents. There was a tendency for autistic children to respond positively to their parents' positive behaviors and negatively to parents' negative behaviors. This same tendency of affective matching was also observed for the parents' behavior following the children's behavior. Contrary to what may be expected, autistic children did not tend to react negatively or seek isolation in response to their parents' positive behaviors; alternatively, they tended to return the positive affect. These findings corroborate with those of previous studies of normal parent-child interaction in which the general affective tone of parent and child tend to be qualitatively matched. However, for the present sample,

affective reciprocity was greatest for "negative" and "no interaction" behaviors. It is suggested that these salient findings may be due to the unique characteristics of the autistic child. That is, "negative" and "no interaction" behaviors may be the most pertinent to the interaction of autistic children and their parents precisely because of the autistic children's difficulty in relating.

Analyses of parent differences suggested that affective reciprocity existed in mother-child interactions, yet for father-child interactions reciprocity appeared inconsistent. This discrepency may suggest that the patterns of interaction of fathers and their children may be quite different from those of mothers and their children; however further research is necessary to substantiate this finding.

Results of the present study did consistently indicate that parents were most often the ones to initiate interaction with their autistic children, and the children were usually the ones who terminated these interactions. Autistic children, however, were on occasion found to initiate interactions and parents did terminate interactions, although with much lower frequency. Nevertheless, the affective behaviors displayed by both parents and their autistic children in interaction were predominantly positive in quality. The autistic children in the present study tended to display relatively low amounts of avoidance and autistic "aloneness", and these periods of non-relatedness tended to be of short duration. These findings suggest that these autistic children may have

responded to the social demands of the situation with appropriate affect the majority of the time.

In taking a closer look at the sustained periods of child non-relatedness, results indicated that as the overall quality of the parent-child interaction became toned down or lacking in affect, the child tended to engage in non-interaction. It appeared that unless the parent actively attempted to engage the autistic child in interaction, the child tended to seek isolation. However, the present findings seemed to indicate that parents did not tend to disrupt their child's isolated behavior, or if they did, it was achieved in a non-threatening, neutral manner. Episodes of avoidant behavior by the autistic children in the current investigation tended to be preceded by unpleasant affect or rejection by the parent. In contrast to the parental behavior observed in response to the child's non-interaction behavior, findings seemed to indicate that when the child exhibited negative or avoidance behavior, the parents actively sought to disrupt the child's undesirable behavior and their attempts appeared to be successful.

Analysis of parent and task differences suggested that autistic children were more likely to display withdrawn or isolatory behavior when parent and child were permitted to play with toys, and the time spent engaging in such behavior was equal for mother-child and father-child interactions. In contrast, these autistic children were more likely to exhibit avoidant behavior when the use of toys was

restricted. It remains unclear whether this finding is truly a consequence of the autistic child's reluctance to interact directly with the parents or simply a reflection of the certain frustration introduced by the situation.

The present study, though limited by its small sample size, suggests that autistic children are able to, and do in fact, display appropriate behaviors which serve to initiate and maintain affective interaction with their parents. Although these children do demonstrate sustained periods of non-relatedness, these episodes are of relatively short duration and do not predominate the interaction sessions with either mother or father. In general, the parent-child interactions were characterized by a system of mutual affective exchange which may suggest the autistic child's ability to accurately read and appropriately respond to his/her parents' affective states.

These preliminary findings demonstrate the potential value of the Bank Interaction Coding System for assessing the affective relationship between autistic children and their parents. Future research is necessary to explore the applicability of the BICS with non-autistic populations and to ascertain if the interaction patterns described in the present study are unique to autistic children and their parents.

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